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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/034,258	01/03/2002	Henning Moller	31653-177198	9410

26694 7590 05/27/2003

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EXAMINER	
DOLE, TIMOTHY J	

ART UNIT	PAPER NUMBER
2858	

DATE MAILED: 05/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

A 71

Office Action Summary	Application No.	Applicant(s)	
	10/034,258	MOLLER ET AL.	
	Examiner	Art Unit	
	Timothy J. Dole	2858	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 January 2002* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *2,4* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. The drawings are objected to because: reference numerals 1-6 in figure 2 should be 51-56; and the empty boxes in figure 1 should contain labels or symbols describing their respective functions. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: "ans" should be "and" on page 25, line 6. Appropriate correction is required.

3. Claim18 is objected to because of the following informalities: "method" should be "apparatus" in claim 18, line 1. Appropriate correction is required.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-7, 12, 13, 16, 17 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Lowitz (USPN 4,707,652).

Referring to claims 1 and 16, Lowitz discloses a method of testing a mass consisting at least primarily of a first material for the presence of at least one second material, comprising the steps of: establishing and maintaining a microwave field

(column 2, lines 18-23); introducing the mass into the range of the microwave field so that the field is influenced by the mass (column 2, lines 18-45); and analyzing the influence of the mass upon the microwave field (column 2, lines 45-48), including: simultaneously measuring the actual values of a first and a second characteristic of the microwave field (column 2, line 67 – column 3, line 5), selecting an acceptable value range for the actual values (column 3, lines 7-29), ascertaining whether the actual values are within the acceptable range (column 3, lines 29-33), and generating signals when the actual values are outside of the acceptable range (column 3, lines 29-36).

Referring to claim 2, Lowitz discloses the method as claimed wherein the acceptable range encompasses measured values of first and second characteristics of the microwave field when the field is influenced by a mass containing only the first material (column 5, lines 31-39).

Referring to claim 3, Lowitz discloses the method as claimed wherein the actual values are outside of the acceptable value range, to thus initiate the generation of signals, when the mass being introduced into the range of the microwave field contains the at least one second material (column 5, lines 31-39).

Referring to claims 4 and 17, Lowitz discloses the method as claimed wherein the mass includes a stream and said introducing step includes moving the stream through the microwave field (column 7, lines 24-32).

Referring to claim 5, Lowitz discloses the method as claimed wherein the mass consists at least of the first material, of a wrapper for the first material, and potentially of at least some second material randomly distributed in the first material (column 7, line 34

– column 8, line 11). It should be noted that a cigarette rod in a cigarette making machine would include a wrapper to make the sample cylindrical.

Referring to claims 6 and 19, Lowitz discloses the method as claimed wherein the first material is a material of the tobacco processing industry (column 8, lines 8-9).

Referring to claim 7, Lowitz discloses the method as claimed wherein the first material is a smokable material (column 8, lines 8-9).

Referring to claim 12, Lowitz discloses the method as claimed wherein said step of selecting an acceptable value range for the actual values includes introducing into the microwave field a sample mass which is devoid of the at least one second material (column 1, lines 66-68), examining the sample mass while within the microwave field (column 1, lines 66-68), and utilizing the examining step to select said acceptable value range (column 5, lines 31-39).

Referring to claim 13, Lowitz discloses the method as claimed wherein the sample mass contains a tubular envelope (column 8, lines 10-11). It should be noted that a cigarette rod contains a wrapping, which could be referred to as a tubular envelope.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 8, 14, 15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lowitz in view of Moeller (USPN 6,163,158).

Referring to claim 8, Lowitz discloses the method as claimed except wherein the first material is filter material for tobacco smoke.

Moeller discloses a method for testing a mass wherein the material is filter material for tobacco smoke (abstract).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the filter material testing of Moeller into the method of Lowitz for the purpose of performing a more thorough evaluation of a cigarette whereby leading to more consistent, higher quality production.

Referring to claims 14 and 20, Lowitz discloses the method as claimed except for the step of utilizing said actual values of said first and second characteristics of the microwave field for a determination of a characteristic of the mass other than potential presence of at least one second material.

Moeller discloses a method for testing a mass including the step of utilizing said actual values of said first and second characteristics of the microwave field for a determination of a characteristic of the mass other than potential presence of at least one second material (abstract).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the additional characteristic determination of Moeller into the method of Lowitz for the same purpose as given in claim 8, above.

Referring to claim 15, Lowitz discloses the method as claimed wherein the first material contains tobacco (column 8, lines 8-9).

Lowitz does not disclose said characteristic other than the potential presence of at least one second material includes at least one of the density and moisture content of tobacco.

Moeller discloses a method for testing a mass wherein said characteristic other than the potential presence of at least one second material includes at least one of the density and moisture content of tobacco (abstract).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the density and/or moisture determination of Moeller into the method of Lowitz for the same purpose as given in claim 8, above.

7. Claims 9-11 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lowitz in view of Dominguez et al.

Referring to claims 9 and 18, Lowitz discloses the method as claimed further comprising the step of: conveying the mass through the microwave field along a predetermined path (column 7, lines 24-32).

Lowitz does not disclose the steps of subdividing the mass in said path into a plurality of sections; and utilizing said signals to segregate from said path those sections of the mass the introduction of which into the range of the microwave field resulted in the generation of signals.

Dominguez et al. discloses a method for detecting impurities in a mass, comprising the steps of subdividing the mass in said path into a plurality of sections; and

utilizing said signals to segregate from said path those sections of the mass the introduction of which into the range of the microwave field resulted in the generation of signals (column 5, line 47 – column 6, line 3).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the dividing and removing steps of Dominguez et al. into the method of Lowitz for the purpose of discarding samples containing impurities, whereby leading to more consistent, higher quality production (column 1, lines 46-56).

Referring to claim 10, Lowitz discloses the method as claimed wherein said introducing step includes imparting to the mass the shape of a stream and conveying the steam in a predetermined direction along a path extending through the microwave field (column 7, lines 24-32).

Lowitz does not disclose the steps of confining the stream in a wrapping material upstream of the microwave field, as seen in said direction, and subdividing the wrapping material and the first material therein into a succession of discrete sections, and further comprising the step of utilizing said signals to remove from said path discrete sections containing said second material.

Dominguez et al. discloses the steps of confining the stream in a wrapping material (fig. 2 at (77)) upstream of the microwave field (fig. 2 at (20)), as seen in said direction (fig. 2 (A)), and subdividing the wrapping material and the first material therein into a succession of discrete sections (column 6, line 49 – column 7, line 2), and further comprising the step of utilizing said signals to remove from said path discrete sections containing said second material (column 5, line 47 – column 6, line 3).

Therefore, it would have been obvious to one skilled in the art at the time of the invention to incorporate the wrapping, dividing and removing steps of Dominguez et al. into the method of Lowitz for the same purpose as given in claim 9, above.

Referring to claim 11, Lowitz discloses the method as claimed wherein each discrete section includes a rod-shaped smokers' product (column 8, lines 5-6).

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following patents are cited to show the state of the art with respect to analyzing cigarette rods.

USPN 5,016,653 to Lassiter: This patent shows an apparatus for detecting impurities in cigarettes and a method for isolating and discarding the defects.

USPN 4,942,363 to Lowitz: This patent shows an apparatus and method for determining moisture and density of tobacco rods.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy J. Dole whose telephone number is 703-305-7396. The examiner can normally be reached on Mon. thru Fri. from 8:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, N. Le can be reached on 703-308-0750. The fax phone numbers for the organization

where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

TJD
May 20, 2003

N. Le
Supervisory Patent Examiner
Technology Center 2800